data message when pairing via the low-power personal area network, the data message comprising an instruction to pair via a general personal area network; and pair with the wearable computing device via the general personal area network.

The processor may be further configured to enter the host computing device into a listening mode prior to receiving the advertisement packet.

The processor may be is further configured to receive a connection request confirmation from the wearable computing device, and validate the connection request confirmation, when pairing via the low-power personal area network.

In some cases, prior to pairing via the general personal area network, the processor may be further configured to receive a service discovery request from the wearable computing device, and transmit a services list to the wearable computing device in response to the service discovery request.

The processor may be further configured to: receive a notification registration request from the wearable computing device; in response to the notification registration request, notify the wearable computing device of one or more characteristics; receive a characteristic write request; and in response to the characteristic write request, pre-authorize the wearable computing device for the pairing via the general personal area network.

In some cases, the data message is provided in the form of a notification message.

In some cases, the low-power personal area network is a Bluetooth Low Energy network.

In some cases, the general personal area network is a Bluetooth personal area network.

In some cases, the processor is configured to pair the general personal area network in at least two pairing stages.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings, identical reference numbers identify similar elements or acts. The sizes and relative positions of elements of the drawings are not necessarily drawn to scale. For example, the shapes of various elements and angles are not necessarily drawn to scale, and some of these elements are arbitrarily enlarged and positioned to improve drawing legibility. Further, the particular shapes of the elements as drawn are not necessarily intended to convey any information regarding the actual shape of the particular elements, and have been solely selected for ease of recognition in the drawings.

FIG. **1** is a schematic block diagram of a delegated network access system for a wearable computing device in accordance with at least some embodiments.

FIG. **2** is a simplified block diagram of a wearable computing device of the system of FIG. **1**.

FIG. **3** is a simplified block diagram of a controller device of the system of FIG. **1**.

FIG. **4** is a simplified block diagram of a host computing device of the system of FIG. **1**.

FIG. **5** is a simplified block diagram of a remote computing device of the system of FIG. **1**.

FIG. **6**A is a schematic block diagram of an example platform architecture implemented by a wearable computing device in accordance with some embodiments.

FIG. **6**B is a schematic block diagram of an example platform architecture implemented by a host computing device in accordance with some embodiments.

FIG. **7** is a schematic block diagram of an example delegated network access system for a wearable device in accordance with some embodiments.

FIG. **8**A is a simplified process flow diagram of a method of wirelessly coupling a wearable computing device to a host computing device in accordance with some embodiments.

FIG. **8**B is a continuation of the simplified process flow diagram of FIG. **8**A in accordance with some embodiments.

FIG. **8**C is a continuation of the simplified process flow diagram of FIG. **8**A in accordance with some alternative embodiments.

FIG. **9**A is a simplified process flow diagram of a method of facilitating communication between a wearable computing device and a remote network via a host computing device connected to the remote network in accordance with some embodiments.

FIG. **9**B is a simplified process flow diagram of a method of facilitating communication between a wearable computing device and a remote network via a host computing device connected to the remote network in accordance with some embodiments.

FIGS. **10**A and **10**B are perspective views of a controller device in accordance with some embodiments.

FIG. **10**C is a block diagram of an electronic circuit housed within the controller device of FIGS. **10**A and **10**B.

FIG. **11** is a perspective view of an exemplary implementation of a glasses frame formed according to the present disclosure.

FIG. **12** is a perspective view of an exemplary implementation of a first arm of a glasses frame according to the present disclosure having an antenna housed in the arm.

FIG. **13**A is a perspective view of an alternative exemplary implementation of a glasses frame formed according to the present disclosure and having an antenna housed in the frame.

FIG. **13**B is a perspective view of the antenna of FIG. **13**A.

FIG. **14**A is a perspective view of an alternative exemplary implementation of a glasses frame formed according to the present disclosure and having an antenna housed in the frame.

FIG. **14**B is a perspective of the antenna of FIG. **14**A.

FIG. **15**A is a simplified schematic block diagram of an example system architecture in accordance with some embodiments.

FIG. **15**B a simplified schematic block diagram of an example system architecture of the wearable computing device of FIG. **15**A.

FIG. **16** is an example process flow for providing a hardware abstraction layer with reduced latency in accordance with some embodiments.

FIG. **17** is a process flow diagram for an example method of managing communications between a wearable computing device and at least one remote computing device.

FIG. **18** is an example process flow for a method of configuring a wearable computing device.

FIG. **19** is a process flow diagram for a method of data logging from a wearable computing device to at least one remote computing device.

DETAILED DESCRIPTION

It will be appreciated that for simplicity and clarity of illustration, where considered appropriate, reference numerals may be repeated among the figures to indicate corresponding or analogous elements or steps. In addition,